ARCHITECTS' & ENGINEERS' SPECIFICATIONS

Power Amplifier
XP7000

▶ 120 V model

The power amplifier shall provide two channels of amplification. This amplifier shall draw 650 W or less at 1/8 rated power into 4 ohm loads. The power amplifier shall be capable of operation from a 120 V, 60 Hz line. The amplifier shall meet the following performance criteria. Power output with both channels driven shall be a minimum of 1100 W per channel with a 4 ohm load, 750 W with an 8 ohm load and 2200 W mono bridged into an 8 ohm load. Burst peak output with both channels driven shall be a minimum of 1600 W per channel with a 2 ohm load. Total harmonic distortion (THD+N) shall be less than 0.1% at 20 Hz - 20 kHz, half power. Intermodulation distortion (IMD) shall be less than 0.1% using the SMPTE standard of 60 Hz and 7 kHz in a 4:1 ratio respectively with an 8 ohm load. Frequency response shall be from 20 Hz to 50 kHz (+0 dB, -1 dB) at 8 ohm, Po=1 W. Residual noise at 20 Hz - 20 kHz shall be less than -70 dBu. Input shall be electronically balanced, with a minimum impedance of 20 kohm balanced and 10 kohm unbalanced. The voltage gain shall be switched to 32 dB/26 dB/+4 dBu, and the input sensitivity also shall be switched to +4 dBu/+13.7 dBu/+7.7 dBu. Maximum input voltage shall be +22 dBu. The unweighted signal to noise ratio over the range of 20 Hz - 20 kHz shall exceed 104 dB, referenced to full output. Built-in protection circuitry shall monitor voltage and current levels to minimize potential damage from overloads, and disable output during shorts, DC offset, or excessive operating temperatures 100°C. The relay shall also delay amplifier connection to the load during turn-on for three seconds while the protection circuitry analyzes the load. In-rush current limiting shall minimize turn-on current surges when multiple units are powered-up remotely to prevent AC breaker overload. The amplifier shall employ forced-air cooling with dual temperature-controlled fans, variable in speed for minimum acoustic noise. Air flow shall be from front to rear. The front panel shall have a recessed AC power switch, LED indicator. The LED indicators shall indicate POWER/STAND-BY, PROTECTION, TEMP and REMOTE condition. The front-panel shall have two 31-step volume knobs (one per ch). A rear-panel mode switch shall provide three modes of input operation: Stereo, Bridged, and Parallel. In Parallel input mode, each channel's level shall be independently adjustable. The rear-panel shall have 12 dB/oct HPF switch (fc=20 Hz or 55 Hz). Rear panel input connectors shall be a 3-pin detachable terminal block and a 3-pin XLR connector for each channel. The XLR input shall be wired with pin 2 hot. Rear panel output connectors shall be a 5-way binding posts and SPEAKON connectors. Dsub15P Data Port connectors shall allow remote control and monitoring. The amplifier shall employ patented EEEngine technology. Including MOSFET based independent high speed current and voltage buffers without delay circuits to improve slew rate. Isolation components shall be provided and output devices shall be mounted by individual screws to minimize sonic degradation caused by vibration. The amplifier shall conform to the latest EU RoHS hazardous substances and WEEE directives. The amplifier shall have front panel carrying handles. It shall use only two standard rack-spaces and its dimensions shall be 480 mm W x 456 mm D x 88 mm H (18-7/8" x 17-15/16" x 3-7/16"). Weight shall be 14 kg (30.9 lbs). The amplifier shall be YAMAHA XP7000.

▶ 230 V model

The power amplifier shall provide two channels of amplification. This amplifier shall draw 650 W or less at 1/8 rated power into 4 ohm loads. The power amplifier shall be capable of operation from a 230 V, 50 Hz line. The amplifier shall meet the following performance criteria. Power output with both channels driven shall be a minimum of 1100 W per channel with a 4 ohm load, 750 W with an 8 ohm load, and 2200 W mono bridged into an 8 ohm load. Burst peak output with both channels driven shall be a minimum of 1600 W per channel with a 2 ohm load. Total harmonic distortion (THD+N) shall be less than 0.1% at 20 Hz - 20 kHz, half power. Intermodulation distortion (IMD) shall be less than 0.1% using the SMPTE standard of 60 Hz and 7 kHz in a 4:1 ratio respectively with an 8 ohm load. Frequency response shall be from 20 Hz to 50 kHz (+0 dB, -1 dB) at 8 ohm, Po=1 W. Residual noise at 20 Hz - 20 kHz shall be less than -70 dBu. Input shall be electronically balanced, with a minimum impedance of 20 kohm balanced and 10 kohm unbalanced. The voltage gain shall be switched to 32 dB/26 dB/+4 dBu, and the input sensitivity also shall be switched to +4 dBu/+13.7 dBu/+7.7 dBu. Maximum input voltage shall be +22 dBu. The unweighted signal to noise ratio over the range of 20 Hz - 20 kHz shall exceed 104 dB, referenced to full output. Built-in protection circuitry shall monitor voltage and current levels to minimize potential damage from overloads, and disable output during shorts, DC offset, or excessive operating temperatures 100°C. The relay shall also delay amplifier connection to the load during turn-on for three seconds while the protection circuitry analyzes the load. In-rush current limiting shall minimize turn-on current surges when multiple units are powered-up remotely to prevent AC breaker overload. The amplifier shall employ forced-air cooling with dual temperature-controlled fans, variable in speed for minimum acoustic noise. Air flow shall be from front to rear. The front panel shall have a recessed AC power switch, LED indicator. The LED indicators shall indicate POWER/STAND-BY, PROTECTION, TEMP and REMOTE condition. The front-panel shall have two 31-step volume knobs (one per ch). A rear-panel mode switch shall provide three modes of input operation: Stereo, Bridged, and Parallel. In Parallel input mode, each channel's level shall be independently adjustable. The rear-panel shall have 12 dB/oct HPF switch (fc=20 Hz or 55 Hz). Rear panel input connectors shall be a 3-pin detachable terminal block and a 3-pin XLR connector for each channel. The XLR input shall be wired with pin 2 hot. Rear panel output connectors shall be a 5-way binding posts and SPEAKON connectors. Dsub15P Data Port connectors shall allow remote control and monitoring. The amplifier shall employ patented EEEngine technology. Including MOSFET based independent high speed current and voltage buffers without delay circuits to improve slew rate. Isolation components shall be provided and output devices shall be mounted by individual screws to minimize sonic degradation caused by vibration. The amplifier shall conform to the latest EU RoHS hazardous substances and WEEE directives. The amplifier shall have front panel carrying handles. It shall use only two standard rack-spaces and its dimensions shall be 480 mm W x 456 mm D x 88 mm H. Weight shall be 14 kg. The amplifier shall be YAMAHA XP7000.

YAMAHA CORPORATION
10-1 Nakazawa-cho, Naka-ku, Hamamatsu Japan
www.yamahaproaudio.com

ARCHITECTS' & ENGINEERS' SPECIFICATIONS

Power Amplifier
XP5000

▶ 120 V model

The power amplifier shall provide two channels of amplification. This amplifier shall draw 500 W or less at 1/8 rated power into 4 ohm loads. The power amplifier shall be capable of operation from a 120 V, 60 Hz line. The amplifier shall meet the following performance criteria. Power output with both channels driven shall be a minimum of 750 W per channel with a 4 ohm load, 525 W with an 8 ohm load and 1500 W mono bridged into an 8 ohm load. Burst peak output with both channels driven shall be a minimum of 1300 W per channel with a 2 ohm load. Total harmonic distortion (THD+N) shall be less than 0.1% at 20 Hz - 20 kHz, half power. Intermodulation distortion (IMD) shall be less than 0.1% using the SMPTE standard of 60 Hz and 7 kHz in a 4:1 ratio respectively with an 8 ohm load. Frequency response shall be from 20 Hz to 50 kHz (+0 dB, -1 dB) at 8 ohm, Po=1 W. Residual noise at 20 Hz - 20 kHz shall be less than -70 dBu. Input shall be electronically balanced, with a minimum impedance of 20 kohm balanced and 10 kohm unbalanced. The voltage gain shall be switched to 32 dB/26 dB/+4 dBu, and the input sensitivity also shall be switched to +4 dBu/+12.2 dBu/+6.2 dBu. Maximum input voltage shall be +22 dBu. The unweighted signal to noise ratio over the range of 20 Hz - 20 kHz shall exceed 103 dB, referenced to full output. Built-in protection circuitry shall monitor voltage and current levels to minimize potential damage from overloads, and disable output during shorts, DC offset, or excessive operating temperatures 100°C. The relay shall also delay amplifier connection to the load during turn-on for three seconds while the protection circuitry analyzes the load. In-rush current limiting shall minimize turn-on current surges when multiple units are powered-up remotely to prevent AC breaker overload. The amplifier shall employ forced-air cooling with dual temperature-controlled fans, variable in speed for minimum acoustic noise. Air flow shall be from front to rear. The front panel shall have a recessed AC power switch, LED indicator. The LED indicators shall indicate POWER/STAND-BY, PROTECTION, TEMP and REMOTE condition. The front-panel shall have two 31-step volume knobs (one per ch). A rear-panel mode switch shall provide three modes of input operation: Stereo, Bridged, and Parallel. In Parallel input mode, each channel's level shall be independently adjustable. The rear-panel shall have 12 dB/oct HPF switch (fc=20 Hz or 55 Hz). Rear panel input connectors shall be a 3-pin detachable terminal block and a 3-pin XLR connector for each channel. The XLR input shall be wired with pin 2 hot. Rear panel output connectors shall be a 5-way binding posts and SPEAKON connectors. Dsub15P Data Port connectors shall allow remote control and monitoring. The amplifier shall employ patented EEEngine technology. Including MOSFET based independent high speed current and voltage buffers without delay circuits to improve slew rate. Isolation components shall be provided and output devices shall be mounted by individual screws to minimize sonic degradation caused by vibration. The amplifier shall conform to the latest EU RoHS hazardous substances and WEEE directives. The amplifier shall have front panel carrying handles. It shall use only two standard rack-spaces and its dimensions shall be 480 mm W x 456 mm D x 88 mm H (18-7/8" x 17-15/16" x 3-7/16"). Weight shall be 14 kg (30.9 lbs). The amplifier shall be YAMAHA XP5000.

▶ 230 V model

The power amplifier shall provide two channels of amplification. This amplifier shall draw 500 W or less at 1/8 rated power into 4 ohm loads. The power amplifier shall be capable of operation from a 230 V, 50 Hz line. The amplifier shall meet the following performance criteria. Power output with both channels driven shall be a minimum of 750 W per channel with a 4 ohm load, 525 W with an 8 ohm load and 1500 W mono bridged into an 8 ohm load. Burst peak output with both channels driven shall be a minimum of 1300 W per channel with a 2 ohm load. Total harmonic distortion (THD+N) shall be less than 0.1% at 20 Hz - 20 kHz, half power. Intermodulation distortion (IMD) shall be less than 0.1% using the SMPTE standard of 60 Hz and 7 kHz in a 4:1 ratio respectively with an 8 ohm load. Frequency response shall be from 20 Hz to 50 kHz (+0 dB, -1 dB) at 8 ohm, Po=1 W. Residual noise at 20 Hz - 20 kHz shall be less than -70 dBu. Input shall be electronically balanced, with a minimum impedance of 20 kohm balanced and 10 kohm unbalanced. The voltage gain shall be switched to 32 dB/26 dB/+4 dBu, and the input sensitivity also shall be switched to +4 dBu/+12.2 dBu/+6.2 dBu. Maximum input voltage shall be +22 dBu. The unweighted signal to noise ratio over the range of 20 Hz - 20 kHz shall exceed 103 dB, referenced to full output. Built-in protection circuitry shall monitor voltage and current levels to minimize potential damage from overloads, and disable output during shorts, DC offset, or excessive operating temperatures 100°C. The relay shall also delay amplifier connection to the load during turn-on for three seconds while the protection circuitry analyzes the load. In-rush current limiting shall minimize turn-on current surges when multiple units are powered-up remotely to prevent AC breaker overload. The amplifier shall employ forced-air cooling with dual temperature-controlled fans, variable in speed for minimum acoustic noise. Air flow shall be from front to rear. The front panel shall have a recessed AC power switch, LED indicator. The LED indicators shall indicate POWER/STAND-BY, PROTECTION, TEMP and REMOTE condition. The front-panel shall have two 31-step volume knobs (one per ch). A rear-panel mode switch shall provide three modes of input operation: Stereo, Bridged, and Parallel. In Parallel input mode, each channel's level shall be independently adjustable. The rear-panel shall have 12 dB/oct HPF switch (fc=20 Hz or 55 Hz). Rear panel input connectors shall be a 3-pin detachable terminal block and a 3-pin XLR connector for each channel. The XLR input shall be wired with pin 2 hot. Rear panel output connectors shall be a 5-way binding posts and SPEAKON connectors. Dsub15P Data Port connectors shall allow remote control and monitoring. The amplifier shall employ patented EEEngine technology. Including MOSFET based independent high speed current and voltage buffers without delay circuits to improve slew rate. Isolation components shall be provided and output devices shall be mounted by individual screws to minimize sonic degradation caused by vibration. The amplifier shall conform to the latest EU RoHS hazardous substances and WEEE directives. The amplifier shall have front panel carrying handles. It shall use only two standard rack-spaces and its dimensions shall be 480 mm W x 456 mm D x 88 mm H. Weight shall be 14 kg. The amplifier shall be YAMAHA XP5000.

YAMAHA CORPORATION
10-1 Nakazawa-cho, Naka-ku, Hamamatsu Japan
www.yamahaproaudio.com

ARCHITECTS' & ENGINEERS' SPECIFICATIONS

Power Amplifier
XP3500

▶ 120 V model

The power amplifier shall provide two channels of amplification. This amplifier shall draw 450 W or less at 1/8 rated power into 4 ohm loads. The power amplifier shall be capable of operation from a 120 V, 60 Hz line. The amplifier shall meet the following performance criteria. Power output with both channels driven shall be a minimum of 590 W per channel with a 4 ohm load, 390 W with an 8 ohm load and 1180 W mono bridged into an 8 ohm load. Burst peak output with both channels driven shall be a minimum of 1000 W per channel with a 2 ohm load. Total harmonic distortion (THD+N) shall be less than 0.1% at 20 Hz - 20 kHz, half power. Intermodulation distortion (IMD) shall be less than 0.1% using the SMPTE standard of 60 Hz and 7 kHz in a 4:1 ratio respectively with an 8 ohm load. Frequency response shall be from 20 Hz to 50 kHz (+0 dB, -1 dB) at 8 ohm, Po=1 W. Residual noise at 20 Hz - 20 kHz shall be less than -70 dBu. Input shall be electronically balanced, with a minimum impedance of 20 kohm balanced and 10 kohm unbalanced. The voltage gain shall be switched to 32 dB/26 dB/+4 dBu, and the input sensitivity also shall be switched to +4 dBu/+10.7 dBu/+4.7 dBu. Maximum input voltage shall be +22 dBu. The unweighted signal to noise ratio over the range of 20 Hz - 20 kHz shall exceed 102 dB, referenced to full output. Built-in protection circuitry shall monitor voltage and current levels to minimize potential damage from overloads, and disable output during shorts, DC offset, or excessive operating temperatures 130°C. The relay shall also delay amplifier connection to the load during turn-on for three seconds while the protection circuitry analyzes the load. In-rush current limiting shall minimize turn-on current surges when multiple units are powered-up remotely to prevent AC breaker overload. The amplifier shall employ forced-air cooling with dual temperature-controlled fans, variable in speed for minimum acoustic noise. Air flow shall be from front to rear. The front panel shall have a recessed AC power switch, LED indicator. The LED indicators shall indicate POWER/STAND-BY, PROTECTION, TEMP and REMOTE condition. The front-panel shall have two 31-step volume knobs (one per ch). A rear-panel mode switch shall provide three modes of input operation: Stereo, Bridged, and Parallel. In Parallel input mode, each channel's level shall be independently adjustable. The rear-panel shall have 12 dB/oct HPF switch (fc=20 Hz or 55 Hz). Rear panel input connectors shall be a 3-pin detachable terminal block and a 3-pin XLR connector for each channel. The XLR input shall be wired with pin 2 hot. Rear panel output connectors shall be a 5-way binding posts and SPEAKON connectors. Dsub15P Data Port connectors shall allow remote control and monitoring. The amplifier shall employ patented EEEngine technology. Including MOSFET based independent high speed current and voltage buffers without delay circuits to improve slew rate. Isolation components shall be provided and output devices shall be mounted by individual screws to minimize sonic degradation caused by vibration. The amplifier shall conform to the latest EU RoHS hazardous substances and WEEE directives. The amplifier shall have front panel carrying handles. It shall use only two standard rack-spaces and its dimensions shall be 480 mm W x 456 mm D x 88 mm H (18-7/8" x 17-15/16" x 3-7/16"). Weight shall be 15 kg (33.1 lbs). The amplifier shall be YAMAHA XP3500.

▶ 230 V model

The power amplifier shall provide two channels of amplification. This amplifier shall draw 450 W or less at 1/8 rated power into 4 ohm loads. The power amplifier shall be capable of operation from a 230 V, 50 Hz line. The amplifier shall meet the following performance criteria. Power output with both channels driven shall be a minimum of 590 W per channel with a 4 ohm load, 390 W with an 8 ohm load, and 1180 W mono bridged into an 8 ohm load. Burst peak output with both channels driven shall be a minimum of 925 W per channel with a 2 ohm load. Total harmonic distortion (THD+N) shall be less than 0.1% at 20 Hz - 20 kHz, half power. Intermodulation distortion (IMD) shall be less than 0.1% using the SMPTE standard of 60 Hz and 7 kHz in a 4:1 ratio respectively with an 8 ohm load. Frequency response shall be from 20 Hz to 50 kHz (+0 dB, -1 dB) at 8 ohm, Po=1 W. Residual noise at 20 Hz - 20 kHz shall be less than -70 dBu. Input shall be electronically balanced, with a minimum impedance of 20 kohm balanced and 10 kohm unbalanced. The voltage gain shall be switched to 32 dB/26 dB/+4 dBu, and the input sensitivity also shall be switched to +4 dBu/+10.7 dBu/+4.7 dBu. Maximum input voltage shall be +22 dBu. The unweighted signal to noise ratio over the range of 20 Hz - 20 kHz shall exceed 102 dB, referenced to full output. Built-in protection circuitry shall monitor voltage and current levels to minimize potential damage from overloads, and disable output during shorts, DC offset, or excessive operating temperatures 130°C. The relay shall also delay amplifier connection to the load during turn-on for three seconds while the protection circuitry analyzes the load. In-rush current limiting shall minimize turn-on current surges when multiple units are powered-up remotely to prevent AC breaker overload. The amplifier shall employ forced-air cooling with dual temperature-controlled fans, variable in speed for minimum acoustic noise. Air flow shall be from front to rear. The front panel shall have a recessed AC power switch, LED indicator. The LED indicators shall indicate POWER/STAND-BY, PROTECTION, TEMP and REMOTE condition. The front-panel shall have two 31-step volume knobs (one per ch). A rear-panel mode switch shall provide three modes of input operation: Stereo, Bridged, and Parallel. In Parallel input mode, each channel's level shall be independently adjustable. The rear-panel shall have 12 dB/oct HPF switch (fc=20 Hz or 55 Hz). Rear panel input connectors shall be a 3-pin detachable terminal block and a 3-pin XLR connector for each channel. The XLR input shall be wired with pin 2 hot. Rear panel output connectors shall be a 5-way binding posts and SPEAKON connectors. Dsub15P Data Port connectors shall allow remote control and monitoring. The amplifier shall employ patented EEEngine technology. Including MOSFET based independent high speed current and voltage buffers without delay circuits to improve slew rate. Isolation components shall be provided and output devices shall be mounted by individual screws to minimize sonic degradation caused by vibration. The amplifier shall conform to the latest EU RoHS hazardous substances and WEEE directives. The amplifier shall have front panel carrying handles. It shall use only two standard rack-spaces and its dimensions shall be 480 mm W x 456 mm D x 88 mm H. Weight shall be 15 kg. The amplifier shall be YAMAHA XP3500.

YAMAHA CORPORATION
10-1 Nakazawa-cho, Naka-ku, Hamamatsu Japan
www.yamahaproaudio.com

ARCHITECTS' & ENGINEERS' SPECIFICATIONS

Power Amplifier
XP2500

▶ 120 V model

The power amplifier shall provide two channels of amplification. This amplifier shall draw 320 W or less at 1/8 rated power into 4 ohm loads. The power amplifier shall be capable of operation from a 120 V, 60 Hz line. The amplifier shall meet the following performance criteria. Power output with both channels driven shall be a minimum of 390 W per channel with a 4 ohm load, 275 W with an 8 ohm load and 780 W mono bridged into an 8 ohm load. Burst peak output with both channels driven shall be a minimum of 650 W per channel with a 2 ohm load. Total harmonic distortion (THD+N) shall be less than 0.1% at 20 Hz - 20 kHz, half power. Intermodulation distortion (IMD) shall be less than 0.1% using the SMPTE standard of 60 Hz and 7 kHz in a 4:1 ratio respectively with an 8 ohm load. Frequency response shall be from 20 Hz to 50 kHz (+0 dB, -1 dB) at 8 ohm, Po=1 W. Residual noise at 20 Hz - 20 kHz shall be less than -70 dBu. Input shall be electronically balanced, with a minimum impedance of 20 kohm balanced and 10 kohm unbalanced. The voltage gain shall be switched to 32 dB/26 dB/+4 dBu, and the input sensitivity also shall be switched to +4 dBu/+9.2 dBu/+3.2 dBu. Maximum input voltage shall be +22 dBu. The unweighted signal to noise ratio over the range of 20 Hz - 20 kHz shall exceed 100 dB, referenced to full output. Built-in protection circuitry shall monitor voltage and current levels to minimize potential damage from overloads, and disable output during shorts, DC offset, or excessive operating temperatures 130°C. The relay shall also delay amplifier connection to the load during turn-on for three seconds while the protection circuitry analyzes the load. In-rush current limiting shall minimize turn-on current surges when multiple units are powered-up remotely to prevent AC breaker overload. The amplifier shall employ forced-air cooling with dual temperature-controlled fans, variable in speed for minimum acoustic noise. Air flow shall be from front to rear. The front panel shall have a recessed AC power switch, LED indicator. The LED indicators shall indicate POWER/STAND-BY, PROTECTION, TEMP and REMOTE condition. The front-panel shall have two 31-step volume knobs (one per ch). A rear-panel mode switch shall provide three modes of input operation: Stereo, Bridged, and Parallel. In Parallel input mode, each channel's level shall be independently adjustable. The rear-panel shall have 12 dB/oct HPF switch (fc=20 Hz or 55 Hz). Rear panel input connectors shall be a 3-pin detachable terminal block and a 3-pin XLR connector for each channel. The XLR input shall be wired with pin 2 hot. Rear panel output connectors shall be a 5-way binding posts and SPEAKON connectors. Dsub15P Data Port connectors shall allow remote control and monitoring. The amplifier shall employ patented EEEngine technology. Including MOSFET based independent high speed current and voltage buffers without delay circuits to improve slew rate. Isolation components shall be provided and output devices shall be mounted by individual screws to minimize sonic degradation caused by vibration. The amplifier shall conform to the latest EU RoHS hazardous substances and WEEE directives. The amplifier shall have front panel carrying handles. It shall use only two standard rack-spaces and its dimensions shall be 480 mm W x 456 mm D x 88 mm H (18-7/8" x 17-15/16" x 3-7/16"). Weight shall be 14 kg (30.9 lbs). The amplifier shall be YAMAHA XP2500.

▶ 230 V model

The power amplifier shall provide two channels of amplification. This amplifier shall draw 320 W or less at 1/8 rated power into 4 ohm loads. The power amplifier shall be capable of operation from a 230 V, 50 Hz line. The amplifier shall meet the following performance criteria. Power output with both channels driven shall be a minimum of 390 W per channel with a 4 ohm load, 275 W with an 8 ohm load and 780 W mono bridged into an 8 ohm load. Burst peak output with both channels driven shall be a minimum of 650 W per channel with a 2 ohm load. Total harmonic distortion (THD+N) shall be less than 0.1% at 20 Hz - 20 kHz, half power. Intermodulation distortion (IMD) shall be less than 0.1% using the SMPTE standard of 60 Hz and 7 kHz in a 4:1 ratio respectively with an 8 ohm load. Frequency response shall be from 20 Hz to 50 kHz (+0 dB, -1 dB) at 8 ohm, Po=1 W. Residual noise at 20 Hz - 20 kHz shall be less than -70 dBu. Input shall be electronically balanced, with a minimum impedance of 20 kohm balanced and 10 kohm unbalanced. The voltage gain shall be switched to 32 dB/26 dB/+4 dBu, and the input sensitivity also shall be switched to +4 dBu/+9.2 dBu/+3.2 dBu. Maximum input voltage shall be +22 dBu. The unweighted signal to noise ratio over the range of 20 Hz - 20 kHz shall exceed 100 dB, referenced to full output. Built-in protection circuitry shall monitor voltage and current levels to minimize potential damage from overloads, and disable output during shorts, DC offset, or excessive operating temperatures 130°C. The relay shall also delay amplifier connection to the load during turn-on for three seconds while the protection circuitry analyzes the load. In-rush current limiting shall minimize turn-on current surges when multiple units are powered-up remotely to prevent AC breaker overload. The amplifier shall employ forced-air cooling with dual temperature-controlled fans, variable in speed for minimum acoustic noise. Air flow shall be from front to rear. The front panel shall have a recessed AC power switch, LED indicator. The LED indicators shall indicate POWER/STAND-BY, PROTECTION, TEMP and REMOTE condition. The front-panel shall have two 31-step volume knobs (one per ch). A rear-panel mode switch shall provide three modes of input operation: Stereo, Bridged, and Parallel. In Parallel input mode, each channel's level shall be independently adjustable. The rear-panel shall have 12 dB/oct HPF switch (fc=20 Hz or 55 Hz). Rear panel input connectors shall be a 3-pin detachable terminal block and a 3-pin XLR connector for each channel. The XLR input shall be wired with pin 2 hot. Rear panel output connectors shall be a 5-way binding posts and SPEAKON connectors. Dsub15P Data Port connectors shall allow remote control and monitoring. The amplifier shall employ patented EEEngine technology. Including MOSFET based independent high speed current and voltage buffers without delay circuits to improve slew rate. Isolation components shall be provided and output devices shall be mounted by individual screws to minimize sonic degradation caused by vibration. The amplifier shall conform to the latest EU RoHS hazardous substances and WEEE directives. The amplifier shall have front panel carrying handles. It shall use only two standard rack-spaces and its dimensions shall be 480 mm W x 456 mm D x 88 mm H. Weight shall be 14 kg. The amplifier shall be YAMAHA XP2500.

YAMAHA CORPORATION
10-1 Nakazawa-cho, Naka-ku, Hamamatsu Japan
www.yamahaproaudio.com

ARCHITECTS' & ENGINEERS' SPECIFICATIONS

Power Amplifier
XP1000

▶ 120 V model

The power amplifier shall provide two channels of amplification. This amplifier shall draw 170 W or less at 1/8 rated power into 4 ohm loads. The power amplifier shall be capable of operation from a 120 V, 60 Hz line. The amplifier shall meet the following performance criteria. Power output with both channels driven shall be a minimum of 165 W per channel with a 4 ohm load, 135 W with an 8 ohm load and 330 W mono bridged into an 8 ohm load. Burst peak output with both channels driven shall be a minimum of 250 W per channel with a 2 ohm load. Total harmonic distortion (THD+N) shall be less than 0.1% at 20 Hz - 20 kHz, half power. Intermodulation distortion (IMD) shall be less than 0.1% using the SMPTE standard of 60 Hz and 7 kHz in a 4:1 ratio respectively with an 8 ohm load. Frequency response shall be from 20 Hz to 50 kHz (+0 dB, -1 dB) at 8 ohm, Po=1 W. Residual noise at 20 Hz - 20 kHz shall be less than -70 dBu. Input shall be electronically balanced, with a minimum impedance of 20 kohm balanced and 10 kohm unbalanced. The voltage gain shall be switched to 32 dB/26 dB/+4 dBu, and the input sensitivity also shall be switched to +4 dBu/+5.2 dBu/-0.8 dBu. Maximum input voltage shall be +22 dBu. The unweighted signal to noise ratio over the range of 20 Hz - 20 kHz shall exceed 96 dB, referenced to full output. Built-in protection circuitry shall monitor voltage and current levels to minimize potential damage from overloads, and disable output during shorts, DC offset, or excessive operating temperatures 130°C. The relay shall also delay amplifier connection to the load during turn-on for three seconds while the protection circuitry analyzes the load. In-rush current limiting shall minimize turn-on current surges when multiple units are powered-up remotely to prevent AC breaker overload. The amplifier shall employ forced-air cooling with dual temperature-controlled fans, variable in speed for minimum acoustic noise. Air flow shall be from front to rear. The front panel shall have a recessed AC power switch, LED indicator. The LED indicators shall indicate POWER/STAND-BY, PROTECTION, TEMP and REMOTE condition. The front-panel shall have two 31-step volume knobs (one per ch). A rear-panel mode switch shall provide three modes of input operation: Stereo, Bridged, and Parallel. In Parallel input mode, each channel's level shall be independently adjustable. The rear-panel shall have 12dB/oct HPF switch (fc=20 Hz or 55 Hz). Rear panel input connectors shall be a 3-pin detachable terminal block and a 3-pin XLR connector for each channel. The XLR input shall be wired with pin 2 hot. Rear panel output connectors shall be a 5-way binding posts and SPEAKON connectors. Dsub15P Data Port connectors shall allow remote control and monitoring. The amplifier shall employ patented EEEngine technology. Including MOSFET based independent high speed current and voltage buffers without delay circuits to improve slew rate. Isolation components shall be provided and output devices shall be mounted by individual screws to minimize sonic degradation caused by vibration. The amplifier shall conform to the latest EU RoHS hazardous substances and WEEE directives. The amplifier shall have front panel carrying handles. It shall use only two standard rack-spaces and its dimensions shall be 480 mm W x 456 mm D x 88 mm H (18-7/8" x 17-15/16" x 3-7/16"). Weight shall be 12 kg (26.5 lbs). The amplifier shall be YAMAHA XP1000.

▶ 230 V model

The power amplifier shall provide two channels of amplification. This amplifier shall draw 170 W or less at 1/8 rated power into 4 ohm loads. The power amplifier shall be capable of operation from a 230 V, 50 Hz line. The amplifier shall meet the following performance criteria. Power output with both channels driven shall be a minimum of 155 W per channel with a 4 ohm load, 125 W with an 8 ohm load and 310 W mono bridged into an 8 ohm load. Burst peak output with both channels driven shall be a minimum of 250 W per channel with a 2 ohm load. Total harmonic distortion (THD+N) shall be less than 0.1% at 20 Hz - 20 kHz, half power. Intermodulation distortion (IMD) shall be less than 0.1% using the SMPTE standard of 60 Hz and 7 kHz in a 4:1 ratio respectively with an 8 ohm load. Frequency response shall be from 20 Hz to 50 kHz (+0 dB, -1 dB) at 8 ohm, Po=1 W. Residual noise at 20 Hz - 20 kHz shall be less than -70 dBu. Input shall be electronically balanced, with a minimum impedance of 20 kohm balanced and 10 kohm unbalanced. The voltage gain shall be switched to 32 dB/26 dB/+4 dBu, and the input sensitivity also shall be switched to +4 dBu/+5.2 dBu/-0.8 dBu. Maximum input voltage shall be +22 dBu. The unweighted signal to noise ratio over the range of 20 Hz - 20 kHz shall exceed 96 dB, referenced to full output. Built-in protection circuitry shall monitor voltage and current levels to minimize potential damage from overloads, and disable output during shorts, DC offset, or excessive operating temperatures 130°C. The relay shall also delay amplifier connection to the load during turn-on for three seconds while the protection circuitry analyzes the load. In-rush current limiting shall minimize turn-on current surges when multiple units are powered-up remotely to prevent AC breaker overload. The amplifier shall employ forced-air cooling with dual temperature-controlled fans, variable in speed for minimum acoustic noise. Air flow shall be from front to rear. The front panel shall have a recessed AC power switch, LED indicator. The LED indicators shall indicate POWER/STAND-BY, PROTECTION, TEMP and REMOTE condition. The front-panel shall have two 31-step volume knobs (one per ch). A rear-panel mode switch shall provide three modes of input operation: Stereo, Bridged, and Parallel. In Parallel input mode, each channel's level shall be independently adjustable. The rear-panel shall have 12dB/oct HPF switch (fc=20 Hz or 55 Hz). Rear panel input connectors shall be a 3-pin detachable terminal block and a 3-pin XLR connector for each channel. The XLR input shall be wired with pin 2 hot. Rear panel output connectors shall be a 5-way binding posts and SPEAKON connectors. Dsub15P Data Port connectors shall allow remote control and monitoring. The amplifier shall employ patented EEEngine technology. Including MOSFET based independent high speed current and voltage buffers without delay circuits to improve slew rate. Isolation components shall be provided and output devices shall be mounted by individual screws to minimize sonic degradation caused by vibration. The amplifier shall conform to the latest EU RoHS hazardous substances and WEEE directives. The amplifier shall have front panel carrying handles. It shall use only two standard rack-spaces and its dimensions shall be 480 mm W x 456 mm D x 88 mm H. Weight shall be 12 kg. The amplifier shall be YAMAHA XP1000.

YAMAHA CORPORATION
10-1 Nakazawa-cho, Naka-ku, Hamamatsu Japan
www.yamahaproaudio.com